

debido a la DM se estimó en \$21,516 ± 8062 año/persona. **CONCLUSIONES:** La DM afecta significativamente la productividad laboral en nuestro medio.

PDB19**COSTO DEL AUTOMONITOREO GLUCÉMICO EN PACIENTES EN TRATAMIENTO COMBINADO ORAL Y CON INSULINA EN ARGENTINA**

Elgart J, Gonzalez L, Gagliardino JJ, Rucci E

CENEXA. Centro de Endocrinología Experimental y Aplicada (UNLP-CONICET La Plata), La Plata, Argentina, Buenos Aires, Argentina

OBJETIVOS: Aunque el automonitoreo glucémico (AMG) es una herramienta útil para optimizar el control de la diabetes, no existe en Argentina evidencia de su uso e impacto económico. Este estudio trata de estimar en Argentina, el número de tiras reactivas (TR) para AMG utilizadas en el Sistema de la Seguridad Social (SSS) y su impacto en el costo total de la prescripción terapéutica, en la transición de terapia combinada de antidiabéticos orales (ADO) al agregado de insulina. **METODOLOGÍAS:** Estudio observacional retrospectivo, utilizando registros de una organización del SSS (OSPERYH, consumo de TR de 681 afiliados durante 2012) y de otras dos entidades de la SSS, a través de 8.115 recetas anónimas de medicamentos y TR prescritas en el período Febrero-Abril 2012 y registradas por el Colegio Farmacéutico de la Provincia de Buenos Aires (COLFARMA). Los resultados representan la media ± desvío estándar (DS) o proporciones. Evaluación estadística: utilizamos los test t de student, Kruskal-Wallis y Chi cuadrado, según correspondiera. Se consideraron significativas diferencias con $p < 0.05$. **RESULTADOS:** OSPERYH: las TR fueron provistas bajo sistema de auditoría que incluye educación diabetológica, tipo de tratamiento y grado de control metabólico. Los tipos de tratamiento afectaron significativamente el consumo mensual de TR: combinación ADOs 25±12 vs. ADO+insulina 36±15. El costo total combinación ADOs fue \$456 vs. ADO+insulina \$669 y las TR representaron el 42% y 32% del costo total, respectivamente. COLFARMA: también el tipo de terapia afectó significativamente el consumo mensual de TR pero con valores tres veces superiores: combinación ADOs 75±47 vs. ADO+insulina 89±63. El costo total combinación ADOs fue \$711 vs. ADO+insulina \$983, y las TR representaron el 63% y 54% del costo total, respectivamente. **CONCLUSIONES:** El consumo de TR para AMG aumenta en función de la incorporación de insulina al tratamiento y auditorías como la descripta optimizan su consumo e impacto económico.

PDB20**RELACIÓN DEL ÍNDICE DE MASA CORPORAL Y GASTO EN MEDICAMENTOS EN PERSONAS CON DIABETES EN ARGENTINA**

Prestes M, Elgart J, Gonzalez L, Gagliardino JJ

CENEXA. Centro de Endocrinología Experimental y Aplicada (UNLP-CONICET La Plata), La Plata, Argentina, Buenos Aires, Argentina

OBJETIVOS: Evaluar la relación entre el Índice de Masa Corporal (IMC) y el gasto en medicamentos de personas con Diabetes (DM) en Argentina. **METODOLOGÍAS:** Estudio descriptivo observacional relevando el IMC y el consumo de medicamentos de la Base QUALIDIAB. El gasto mensual en medicamentos se determinó mediante técnicas de microcosteo, considerándose el precio promedio de las presentaciones disponibles en el mercado, sin ajustes. Los valores se expresaron en pesos argentinos (Diciembre 2012). Las personas se estratificaron según IMC de acuerdo a la clasificación de la OMS (Normal: $\geq 18,5$ y < 25 ; Sobrepeso: ≥ 25 y < 30 ; Obesidad: $\text{IMC} \geq 30$). Los resultados se expresaron como media ± desvío estándar (DS). Para las comparaciones se utilizaron los test t de student, ANOVA y Kruskal-Wallis, según correspondiera. Coeficientes de correlación de Pearson (r) se utilizaron para evaluar el grado de asociación. Se consideraron significativos $p < 0,05$. **RESULTADOS:** Se analizaron 1134 registros, edad 63 ± 12 años, 55,4% mujeres. El gasto promedio mensual en medicamentos fue de \$ 975, el gasto en medicamentos para la DM fue \$779, para la Hipertensión \$ 241 y para la Dislipemia \$ 128. El gasto en medicamentos aumentó en función del IMC: Normal: \$782; Sobrepeso: \$936 y Obesidad: \$1149. El gasto fue significativamente mayor en Hombres (\$1045 vs. \$919). El gasto total de medicamentos se correlacionó significativamente con IMC (r: 0,164), al igual que el correspondiente a medicamentos antihipertensivos (r: 0,113) y los utilizados para controlar la hiperglucemia (r: 0,079). **CONCLUSIONES:** En pacientes con DM en Argentina, el IMC se asocia positivamente con el gasto en medicamentos. Estrategias terapéuticas que disminuyan efectivamente el IMC generarían beneficios tanto médicos como económicos.

DIABETES/ENDOCRINE DISORDERS – Patient-Reported Outcomes & Patient Preference Studies**PDB21****PSYCHOMETRIC PROPERTIES OF THE HYPOGLYCEMIA PERSPECTIVES QUESTIONNAIRE (HPQ) IN TYPE 2 DIABETES MELLITUS**

Kawata AK¹, Ong SH², Therapontos C³, Mavrogenis P³, Kulich K², Chen WH⁴, Coyne K⁴

¹Evidera, Bethesda, MD, USA, ²Novartis Pharma AG, Basel, Switzerland, ³Novartis Pharma Services Inc. Cyprus, Nicosia, Cyprus, ⁴Evidera, Bethesda, MD, USA

OBJECTIVES: The Hypoglycemia Perspectives Questionnaire (HPQ) was developed with clinician and patient input to assess symptoms, behaviors, and impact of hypoglycemia on diabetic patients. **METHODS:** The HPQ was administered to adult patients with type 2 diabetes mellitus (T2DM) on antidiabetic treatment as part of a cross-sectional, epidemiological study evaluating hypoglycemia and health-related quality of life (HRQoL) in Cyprus. Demographic and clinical data were collected. Patients also completed the Audit of Diabetes Dependent Quality of Life (ADDQoL-19), treatment satisfaction questionnaire, and EuroQoL-5 Dimensions (EQ-5D). The original HPQ consisted of 45 items rating current status or behavior related to hypoglycemia on an 11-point numeric rating scale (NRS) and 7 additional descriptive hypoglycemia event frequency items. Analyses included examination of HPQ item performance, item reduction, and factor structure. Measurement properties (reliability, construct validity, known-groups validity) of the final HPQ were evaluated. **RESULTS:** A total of 500 T2DM patients completed the HPQ with a mean age of 61±10 years; 32.6% women. Based on item evaluation, the original HPQ item pool

was reduced to 22 items. Exploratory and confirmatory factor analysis identified 21 items contributing to 3 hypoglycemia domains (Symptoms [8 items], Compensatory Behaviors [7 items], Worry [6 items]) and a single-item of global symptom awareness. HPQ domains had high internal consistency reliability (Cronbach's alpha=0.78-0.92). Construct validity was demonstrated by significant correlations between HPQ scores with HRQoL, treatment satisfaction, and health status. HPQ also demonstrated ability to discriminate between known groups. Compensatory behaviors and symptom awareness were higher for patients with a recent low blood sugar event ($p < 0.001$) and high symptom awareness corresponded to less concern about experiencing symptoms of low blood sugar and worry ($p < 0.05$). **CONCLUSIONS:** These results provide preliminary evidence that HPQ is reliable and valid for assessing the experience and impact of hypoglycemia on T2DM patients.

PDB22**TRANSLATION AND VALIDATION OF HINDI VERSION OF DIABETES QUALITY OF LIFE – MEASURE (DQOL-M) IN INDIAN TYPE 2 DIABETES PATIENTS**

Pawar S¹, Thakurdesai P²

¹Smt. Kashibai Navale College of Pharmacy, Pune and Research Scholar Karpagam University, Coimbatore, Pune, India, ²Indus Biotech Private Limited, Pune, India

OBJECTIVES: To test the reliability and validity and of newly translated Hindi version of DQOL-M instrument in Indian type 2 diabetic populations. **METHODS:** Backward and forward translation was carried out and intermediate version was compared with original instrument to check the linguistic equivalence. After pilot testing the final Hindi version of DQOL-M was administered to 250 patients with type 2 diabetes twice at the interval of four weeks. Psychometric parameters like treatment satisfaction, Impact of treatment, worries of social vocational issues of diabetes were assessed. Cronbach alpha for total score was calculated to study the reliability of instrument. **RESULTS:** Internal consistency was assessed using Cronbach alpha and value of 0.86 was gained for the summary score. Cronbach alpha for treatment satisfaction was found to be 0.77, for Impact of treatment it was 0.73 and for worries of social vocational issues score of 0.83 was gained. No significant difference was observed in test-retest analysis. Pearson correlations were assessed for all the four subscales and were found to be significant. **CONCLUSIONS:** This modified and final translated version of instrument confirms the linguistic validity of the questionnaire for the Hindi language and evaluates the psychometric properties of the questionnaire for psychometric validation. Indian Hindi version of DQOL-M is valid and reliable instrument for measuring HRQOL of diabetic type 2 patients.

DIABETES/ENDOCRINE DISORDERS – Health Care Use & Policy Studies**PDB23****PHARMACEUTICAL COST ANALYSIS OF DIABETES MELLITUS USING CLINICAL RISK GROUPS IN VALENCIAN COMMUNITY**

Romero M¹, Uso Talamantes R², Vivas Consuelo D³, De la Poza Plaza E³, Sancho Mestre C³, Trillo Mata JL², Barrachina I³

¹Fundacion Salutia, Bogotá, Colombia, ²Conselleria de Sanidad, Valencia, Spain, Spain, ³Universidad Politécnica de Valencia UPV, Valencia, Spain

OBJECTIVES: Metabolic agents have the highest expense (130 million Euros per year in the Valencian Community) among the top five therapeutic categories of drugs for adults aged 18 and over. Treatment of Diabetes Mellitus (DM) is the main cause of this. Moreover, diabetes is a chronic illness that requires continuous medical care and patient self-management education to prevent acute complications and to reduce the risk of long-term complications. Clinical Risk Groups (CRGs) are a tool claimed as valid for diabetes patient management. In this context we use this methodology to conduct a pharmaceutical cost analysis of diabetes in an Eastern Spanish region where the prevalence reaches approximately 8%. **METHODS:** A database of 5,200,000 subjects was used to analyse the prevalence of patients with DM, comorbidity and complications. The patients with DM diagnoses were classified into CRGs to know their severity levels and pharmaceutical cost was also assigned. A multivariable statistical analysis was performed to evaluate the correlation and level of explanation between CRGs' severity level and pharmaceutical expenditure. **RESULTS:** Identified 300,698 patients with DM type 2 for a prevalence of 7.85% in men and 6.77% in women being the 13.2% and 7.98% in unders 50 years old, respectively. The 69.1% treated with orals hypoglycemics being combined therapy in over 75% of these. The use consumption ratio glucometer strip, increases with disease progression. It was possible to identify the presence of complications in patients analysed. A high correlation between pharmaceutical costs and CRG severity level was found. Comorbidity is a predictor for adjusting the risk of pharmaceutical expenditure. **CONCLUSIONS:** The model obtained could be a useful tool for managing pharmaceutical budget policies and patient management. The use of this measurement technique is useful for monitoring the health medical expense.

PDB25**INFLUENCE OF ONE WEEK EDUCATION PROGRAM ON THE KNOWLEDGE AND APPROACH OF PHARMACY STUDENTS TOWARDS DIABETES MELLITUS**

Khan MS, Akhtar N, Ali A

The Islamia University of Bahawalpur, Punjab-Pakistan, Bahawalpur, Pakistan

OBJECTIVES: To assess the improvement in knowledge and attitude of Pharmacy student towards diabetes by implementing one week education program. **METHODS:** Study was conducted between January 7, 2013 to January 11, 2013 which engaged pharmacy students comprising two groups: experimental and control groups. Lectures and visual presentations on diabetic education and practice were conducted. Three surveys were performed on two group's i.e. non intervened control, non- intervened experimental and intervened experimental surveys. Questionnaire was used as survey tool. **RESULTS:** Mean score on knowledge about diabetes was increased from 68.81% to 88.90% after educational intervention while that of control group was 74.75%. General knowledge of diabetes was increased from 66.37% to 89.90% while that of control was 69.28%. Risk factors knowledge was increased from 61.05% to 90.20% while that of control was 70.20%. Symptoms knowledge increased